

4.0 FACILITY CLOSURE

4.1 INTRODUCTION

Four electrical power-generating units (Units 1 through 4) currently provide 1,002 megawatts (MW) of electrical generating capacity at the Morro Bay Power Plant (MBPP). Duke Energy purchased MBPP from the Pacific Gas and Electric Company (PG&E) in July 1998 and proposes a plant modernization program (i.e., the Project, as defined by this Application for Certification [AFC]). In addition to construction and operation of the two new combined cycle units at MBPP with a total capacity of 1,200 MW, the Project includes the demolition of the existing onsite fuel oil tanks, the retirement of existing Units 1 through 4, and the demolition of the existing power building and three 450-foot-tall stacks for Units 1 through 4. If the Project does not proceed, Duke Energy will continue to operate the existing Units 1 through 4.

As noted above, the Project includes the removal/demolition of several facilities at the MBPP. For a complete discussion of these aspects of the Project, see Chapter 2.0 - Project Description. In summary, as part of the Project first, the unused existing onsite fuel oil tanks will be removed to make way for the new combined cycle units and to visually open up the property. Second, after the new combined cycle units are in commercial operations, the existing power generation facilities, consisting of Units 1 through 4, the existing power building, the three 450-foot-tall stacks, and significant other supporting systems will be demolished and removed from the site. (As described elsewhere in this AFC, the existing cooling water system and the existing PG&E Morro Bay Switchyard will be retained to serve the new units.)

The new combined cycle units will ultimately be removed at the end of their useful life, or possibly earlier if unforeseen circumstances cause Duke Energy to prematurely cease operation of the plant.

4.2 FUTURE CLOSURE OF THE NEW GENERATION FACILITIES

Facility closure for the new generation facilities at MBPP can be grouped into the following categories: unexpected temporary cessation of operations, planned permanent cessation of operations, premature permanent cessation of operations, and unexpected permanent cessation of operations. Unexpected temporary cessation of operations occurs when a facility ceases operations suddenly and/or unexpectedly on a short-term basis, due to unplanned circumstances such as a natural disaster or other unexpected event or emergency. Planned permanent cessation of operations occurs when a facility is closed in a planned, orderly manner, such as at the end of its useful economic or mechanical life, or due to unfavorable economic conditions. Premature

permanent cessation of operations may occur due to unforeseen circumstances such as a severe catastrophic event that damages the facility beyond economic repair, rapid technological advances that render the plant uncompetitive, or similar situations. Unexpected permanent cessation of operations occurs if the owner unexpectedly closes a facility permanently.

In the event of a permanent cessation of operations of MBPP, whether planned or unplanned, Duke Energy will work closely with the California Energy Commission (Commission) and other responsible agencies to assure that unused power plant equipment is removed and the site restored to a condition acceptable to the Commission. However, it is not reasonable at this time to speculate on future uses of the property. In the event of an permanent closure of the facilities, Duke Energy could elect to: (1) replace the equipment with new, state-of-the-art electric generation technology; (2) utilize the site for other, conforming business uses; (3) sell the property; or (4) retain the property for future use.

4.2.1 UNEXPECTED TEMPORARY CESSATION OF OPERATIONS

Unexpected temporary or short-term cessation of operations can result from a number of unforeseen circumstances. Conditions such as lack of fuel, oversupply of electricity, mechanical failure, or other factors may force units to be shut down temporarily. Natural disasters such as earthquakes or severe winter storms may also result in temporary shutdowns.

For a short-term, unexpected temporary cessation of operations that does not involve facility damage, the combined cycle generating units at MBPP would be kept "as is" and ready for restart when the unexpected cessation of operations event is rectified or ceases to restrict operations. If there is a possibility of hazardous substances release, Duke Energy will notify the Commission's compliance unit, and procedures set forth in the contingency plan described below as well as the facility Risk Management Plan will be followed (further described in Section 6.15 - Hazardous Materials Handling).

Depending on the expected duration of the temporary cessation operations, chemicals may be drained from storage tanks and other equipment. Waste materials (hazardous and nonhazardous) will be disposed according to applicable laws, ordinances, regulations and standards (LORS) in effect at the time of unexpected temporary cessation of operations. Facility security will be retained so the MBPP is secure from trespass. In the event of hazardous materials release, once the release is contained and cleaned up, temporary cessation of operations will proceed as described for a closure where there is no release of hazardous materials.

Prior to initiation of operations for the Project, an onsite contingency plan for the new generating units at MBPP will be developed and submitted to the Commission compliance unit. The contingency plan will deal with temporary and unplanned or unexpected cessation of operations of the new units at the MBPP. The plan also will help to assure that necessary steps to protect public health and safety, and mitigate environmental impacts, are taken in a timely manner. The contingency plan will include the following elements:

- Emergency response procedures and instructions for notification of, and coordination with, local emergency response agencies.
- Procedures for taking immediate steps to secure the facility from trespassing and encroachment.
- Procedures for safe shutdown and start-up of equipment.
- Procedures for dealing with hazardous materials and hazardous wastes within 90 days, including draining of tanks and equipment, and disposition of wastes.
- Identification of applicable LORS in effect at the time.
- Communication with the Commission, and responsible agencies regarding facility damage and compliance with LORS.

The onsite contingency plan will be periodically reviewed and updated as necessary.

4.2.2 PLANNED PERMANENT OR PREMATURE CESSATION OF OPERATIONS

The anticipated life of the combined cycle units that will be installed as part of the Project at the MBPP is at least 30 years. Continued operation beyond 30 years may also be viable, especially with good maintenance practices and selective replacement of various equipment. Upon planned permanent or premature cessation of operations of the new units at the MBPP, a plan will be developed as described below. Depending on conditions at the time, removal of the facility from service, or decommissioning, may range from "mothballing" to removal of all equipment and associated facilities. Future conditions that could affect planned or premature - permanent closure/decommissioning decisions are largely unknown at this time. It is, therefore, more appropriate to present the planned or premature, permanent closure to the Commission, and other responsible agencies when more information is available and when planned permanent or premature closure is imminent.

To assure that permanent closure of MBPP will be completed in an environmentally acceptable manner that protects public health and safety, Duke Energy will submit a closure/decommissioning

plan to the Commission and responsible agencies at least 12 months prior to initiation of planned closure/decommissioning. The plan will include the following:

- Proposed closure/decommissioning activities and schedule for the facility and associated facilities constructed.
- Identification and discussion of the impacts associated with the closure as well as appropriate mitigation measures, if necessary.
- Applicable LORS, local/regional plans, and a discussion of conformance of the proposed closure/decommissioning activities with applicable LORS, conditions of certification, and local/regional plans.
- Activities necessary to restore the site if the plan requires removal of equipment and associated facilities.
- Identification of any equipment to remain on site and justification of the future use of such facilities.
- Associated costs of the proposed closure/decommissioning and the source of funds to pay for the closure/decommissioning.
- Coordination with the Commission, and other responsible agencies, including meetings and workshops, if necessary, to coordinate closure activities.

In general, permanent closure/decommissioning activities for the facility will attempt to maximize the recycling of facility components. Reusable equipment will be sold for refurbishment and use at other sites or relocated for use at other Duke Energy plants. Unsalvageable equipment and materials will be scrapped and recycled to the extent practical or disposed in accordance with the regulations in effect at the time. Unused chemicals will be sold to the suppliers or to other purchasers or users. Equipment that contains chemicals will be drained and shut down to assure public health and safety, and to protect the environment. Nonhazardous wastes will be collected and disposed in appropriate landfills or waste collection facilities. Hazardous wastes will be disposed according to applicable LORS. During decommissioning activities, the site will be secured 24 hours per day.

4.2.3 UNEXPECTED PERMANENT CESSATION OF OPERATIONS

In the event of an unexpected permanent cessation of operations of the MBPP, Duke Energy will follow procedures outlined in the onsite contingency plan to assure that appropriate steps to mitigate public health and safety and environmental concerns are taken in a timely manner. The Commission's compliance unit, and other responsible agencies will be notified by Duke Energy. These agencies will be informed of the status of the unexpected permanent closure activities. Concurrently, Duke Energy will prepare a permanent closure/decommissioning plan which will

address the same issues as described above for the planned permanent closure/decommissioning plan. This plan will be developed through coordination with the Commission and other responsible agencies.

4.2.4 OTHER ISSUES

As part of the pre-application input process, the City of Morro Bay expressed concerns about the following facility closure issues:

- Recycling plans for demolition-associated debris, and the nature and extent of the waste disposal requirements as it relates to the demolition of the existing power building and three stacks for Units 1 through 4.
- Plans for the facility site after the modernization effort is complete.

Duke Energy has made significant efforts to respond to these concerns in both the AFC and the Memorandum of Understanding (MOU) signed by Duke and the City of Morro Bay. Specifically, the AFC includes detailed demolition and waste disposal plans for the existing power building and the stacks for Units 1 through 4. These plans include estimates of the equipment and materials that will be used onsite and those that will be removed offsite, the nature and extent of hazardous and toxic waste removal and how this will be accommodated. (It is estimated that the demolition activity for Units 1 through 4, including final site grading, will take approximately 48 months). In part because of City concerns, for example, the concrete from the existing power building and stacks for Units 1 through 4 will be pulverized onsite, temporarily stored, and used to fill in the basement of the existing power building. This will eliminate truck trips into the City for backfill material.

In regards to the second City concern, Duke Energy is not able at this time to speculate on the long-term use of the existing power plant site beyond the agreement that Duke Energy has made in the MOU between the City and Duke Energy. The final site plan and the process of developing it are not part of this Project. Nonetheless, Duke Energy anticipates that the planning process will be a community process and that it can begin within 3 months after the construction of the combined cycle units begins, assuming that all the various agreements are in place governing this planning process. Duke Energy looks forward to working with residents of the City of Morro Bay to define the long-term future of this site at the appropriate time.